

3.38 Spherical Wedge

Radius: R

Dihedral angle in degrees: x

Dihedral angle in radians: α

Area of spherical lune: S_L

Total surface area: S

Volume: V

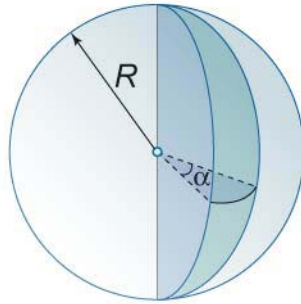


Figure 55.

$$352. S_L = \frac{\pi R^2}{90} \alpha = 2R^2 x$$

$$353. S = \pi R^2 + \frac{\pi R^2}{90} \alpha = \pi R^2 + 2R^2 x$$

$$354. V = \frac{\pi R^3}{270} \alpha = \frac{2}{3} R^3 x$$

